(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
3 January 2002 (03.01.2002)

PCT

(10) International Publication Number
WO 02/001653 A3

(51) International Patent Classification[7]: C07C 211/61, C07D 209/86, H01L 51/20, 51/30

(21) International Application Number: PCT/US01/20584

(22) International Filing Date: 28 June 2001 (28.06.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/214,796 28 June 2000 (28.06.2000) US

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(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
3 January 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 02/001653 A3

(54) Title: ORGANIC LIGHT EMITTING DIODE DEVICES USING AROMATIC AMINE COMPOUNDS WITH HIGH AND TUNABLE GLASS TRANSITION TEMPERATURES

(57) Abstract: The present invention relates to a novel class of thermostable hole-injection and hole-transport compounds having tunable glass transition temperatures and ionizing potentials for use in organic light emitting diode ("OLED") devices. In particular, the compounds of the present invention comprise a trityl aniline core structure with various substituents attached to the nitrogen group, the structures of which allow for the adjustment of the glass transition temperatures and ionization potentials of the compounds. The present invention also relates to microdisplay devices comprising the compounds of the present invention in the hole-injection/hole-transport layers.

INTERNATIONAL SEARCH REPORT

Inte al Application No
PCT/US 01/20584

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07C211/61 C07D209/86 H01L51/20 H01L51/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07C H01L C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
PAJ, EPO-Internal, WPI Data, BEILSTEIN Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 848 579 A (TOYO INK MFG CO) 17 June 1998 (1998-06-17) page 4, line 1 - line 24 table 1, compounds 6 and 9	1-125
A	EP 0 924 192 A (CHISSO CORP) 23 June 1999 (1999-06-23) page 3, line 19 - line 56	1-125

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance

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Date of the actual completion of the international search	Date of mailing of the international search report
29 July 2002	05/08/2002

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	O'Sullivan, P

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

...rmation on patent family members

Inter ...l Application No
PCT/US 01/20584

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